

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PHDE030267WO	FOR FURTHER ACTION	See item 4 below
International application No. PCT/IB2004/051228	International filing date (<i>day/month/year</i>) 15 July 2004 (15.07.2004)	Priority date (<i>day/month/year</i>) 28 July 2003 (28.07.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
 2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input checked="" type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

	Date of issuance of this report 30 January 2006 (30.01.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Idhir Britel
Facsimile No. +41 22 740 14 35	Telephone No. +41 22 338 70 60

PATENT COOPERATION TREATY

REC'D 22 DEC 2004

From the
INTERNATIONAL SEARCHING AUTHORITY

WIPO PCT

PCT

To:

see form PCT/ISA/220

3/2

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2004/051228

International filing date (day/month/year)
15.07.2004

Priority date (day/month/year)
28.07.2003

International Patent Classification (IPC) or both national classification and IPC
H01P5/10, H01P1/203, H01P7/08

Applicant
PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Pastor Jiménez, J-V

Telephone No. +31 70 340-4985



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/051228

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/051228

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	8, 9, 12-15, 24
	No: Claims	1-7, 10, 11, 16-23, 25-29
Inventive step (IS)	Yes: Claims	
	No: Claims	1-29
Industrial applicability (IA)	Yes: Claims	1-29
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following document/s/:
D1: US-A-5 640 699 (RALPH LOREN E) 17 June 1997 (1997-06-17)
D2: US-A-5 880 652 (SNEL JAN) 9 March 1999 (1999-03-09)
D3: NAKAJIMA M ET AL: "Characterization of coupled asymmetric suspended strip lines having three thick-strip conductors and side-wall grooves" 1989 IEEE MTT-S DIGEST, 13 June 1989 (1989-06-13), pages 719-722, XP010085682
D4: US 2002/113682 A1 (GEVORGIAN SPARTAK ET AL) 22 August 2002 (2002-08-22)

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-7, 10, 11, 16-23, 25-29 is not new in the sense of Article 33(2) PCT.

- 2.1. The document D1 discloses (the references in parentheses applying to this document):

A high frequency component with a substrate constructed of a plurality of dielectric layers (fig. 1) and , between them, electrode layers having conducting track structures (fig. 1, (14), (18)), in which substrate at least one capacitive element and at least one inductive element is formed (column 5, lines 46-50), whereby at least one arrangement of opposed conducting track structures is provided (fig. 1), these realizing simultaneously a capacitive and an inductive element, whereby the common-mode impedance and the push-pull impedance between at least two opposing conducting track structures are adjusted to differ by a factor of at least 2 (fig. 9).

Therefore claim 1 is not novel.

- 2.2. Document D1 discloses also the additional features of dependent claims 2-7, 10, 11, 16-23, 25-29 (column 1, line 29-31, column 3, lines 5-65, column 4, lines 1-20, column 5, lines 47-51, figs. 1, 2, 5-7, 9, 10).

Furthermore, figs. 3-8 discloses different ways of linking the conducting track structures (Claim 2). In addition, the common-mode and the push-pull impedance are plotted as a function of line width in thousandths of an inch for a balanced transmission line (Claim 3). Document D1 (column 3, lines 5-39 and column 4, lines 11-20) discloses that the thickness of the dielectric layer arranged between the opposed conducting tracks structures is smaller than the width of the conducting tracks (claims 4, 5).

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 8, 9, 12-15, 24 does not involve an inventive step in the sense of Article 33(3) PCT.

Document D1 is regarded as being the closest prior.

- 3.1. Claims 8 differs from D1 in that a material having a dielectric constant greater than 70 is used between the opposed conducting tracks. Claim 9 claims a specific material composition. However document D2 (column 2, lines 46-49) discloses a stripline filter embedded in a multilayer dielectric with the materials claimed in claim 9 with a dielectric constant as claimed in claim 8, for reducing the dimensions of the filter.
Therefore, claims 8 and 9 lack inventive step in view of D1 in combination with D2.
- 3.2. Document D3 (page 719, right-hand column, line 30 to page 720, left-hand column, line 18, figs. 2 and 3) solves the problem of an offset between the two conducting tracks in the same way as it has been claimed by claims 12 and 13. Therefore, claims 12 and 13 lack inventive step in view of D1 in combination with D3.
- 3.4. Document D4 discloses a high frequency component with a bridge or a conducting member connected between the two conducting tracks, disclosing all the additional features of claims 14, 15 and 24.
Therefore, claims 14, 15 and 24 lack inventive step in view of D1 in combination with D4.